

PATENT CLAIMS

- 5 1. Process for perfluoroalkylation, characterised in that at least one tris-(perfluoroalkyl)phosphine oxide is reacted with the substrate to be perfluoroalkylated, where the tris(perfluoroalkyl)phosphine oxide is treated with at least one base before or during the reaction.
- 10 2. Process for perfluoroalkylation according to Claim 1, characterised in that the substrates employed are organic compounds, preferably tricoordinated organoboron compounds and/or organic compounds containing carbonyl groups.
- 15 3. Process for perfluoroalkylation according to Claim 1, characterised in that strong bases, preferably potassium tert-butoxide, n-butyllithium, metal amides and/or Grignard reagents, are used.
- 20 4. Use of at least one tris(perfluoroalkyl)phosphine oxide for the perfluoroalkylation of chemical substrates.

25

30